CLAIMS

What is claimed is:

1. An apparatus, comprising:

a metal-oxide-semiconductor transistor with a shifted flat band magnitude;

a gate electrode coupled to said metal-oxide-semiconductor transistor and to a positive voltage source; and

a source electrode, a drain electrode, and a substrate electrode coupled to each other and to a negative voltage source.

2. The apparatus of claim 1, wherein said metal-oxide-semiconductor includes a gate area material with a work function less than – 0.56 volts.

3. The apparatus of claim 2, wherein said gate area material is platinum silicate.

4. The apparatus of claim 2, wherein said gate area material is selected from the group consisting of tantalum nitrate, iridium, nickel, and arsenic.

5. The apparatus of claim 1, wherein said metal-oxide-semiconductor transistor includes a heavily-doped substrate area.

6. The apparatus of claim 1, wherein said metal-oxide-semiconductor transistor is a p-channel device.

7. The apparatus of claim 1, wherein said metal-oxide-transistor is an n-channel device.

8. A method, comprising:

shifting a flat band magnitude in a metal-oxide-semiconductor transistor;

coupling a gate electrode of said metal-oxide-semiconductor transistor to a positive voltage source; and

coupling a source electrode, a drain electrode, and a substrate electrode of said metal-oxide-semiconductor transistor to a negative voltage source.

9. The method of claim 8, wherein said shifting includes utilizing a gate area with a material whose work function is less than – 0.56 volts.

10. The method of claim 9, wherein said material is platinum silicate.

11. The method of claim 9, wherein said material is selected from the group consisting of tantalum nitrate, iridium, nickel, and arsenic.

12. The method of claim 8, wherein said shifting includes utilizing a substrate which is heavily-doped.

13. The method of claim 8, wherein said metal-oxide-semiconductor transistor is a p-channel device.

14. The method of claim 8, wherein said metal-oxide-semiconductor transistor is an n-channel device.

15. An apparatus, comprising:

means for shifting a flat band magnitude in a metal-oxide-semiconductor transistor;

means for coupling a gate electrode of said metal-oxide-semiconductor transistor to a positive voltage source; and

means for coupling a source electrode, a drain electrode, and a substrate electrode of said metal-oxide-semiconductor transistor to a negative voltage source.

16. The apparatus of claim 15, wherein said means for shifting includes a gate area with a material whose work function is less than – 0.56 volts.

17. The apparatus of claim 16, wherein said material is platinum silicate.

18. The apparatus of claim 16, wherein said material is selected from the group consisting of tantalum nitrate, iridium, nickel, and arsenic.

19. The apparatus of claim 15, wherein said means for shifting includes a substrate which is heavily-doped.

Add B3

Add C2

(1-7, 15-19)

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